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(71) Applicant *(for all designated States except DE, US)*: **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(71) Applicant *(for DE only)*: **PHILIPS INTELLECTUAL PROPERTY & STANDARDS GMBH** [DE/DE]; Steindamm 94, 20099 Hamburg (DE).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **FUDERER, Miha** [BE/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). **EGGERS, Holger** [DE/DE]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(74) Agents: **COHEN, Julius, S.** et al.; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

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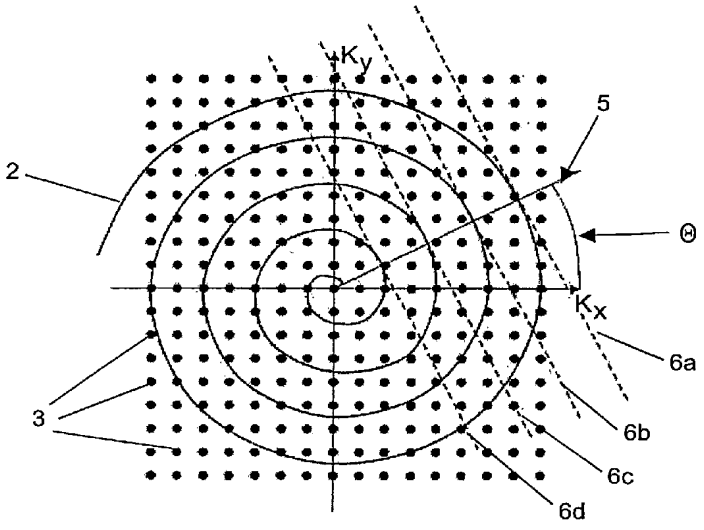
(54) Title: MAGNETIC RESONANCE IMAGING METHOD



(57) Abstract: A novel magnetic resonance imaging method and apparatus is described wherein an image is derived from sub-sampled magnetic resonance signals and on the basis of the spatial sensitivity profile of each receiving antenna. A sequence of RF-pulses and gradients is applied, which sequence corresponds to a set of trajectories containing at least one substantially non-linear trajectory in k-space, wherein the density of said trajectory set being substantially lower than the density corresponding to the object size. Each signal along said trajectory set is sampled at least at two different receiver antenna positions. The image is reconstructed by converting the data of said signals to a Cartesian grid by convolution with a gridding kernel, whereby the gridding kernel is specific for each antenna, differs between one region and another in k-space, and is a Fourier-transform of a pattern weighted for each antenna with respect to the Cartesian grid.

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